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(54) Title: COMBINATORIAL SURFACE CHIP COMPOSITIONS FOR SELECTION, DIFFERENTIATION AND PROPAGATION OF CELLS

(57) Abstract: A combinatorial library high-throughput technique for varying polymer surface structures has been developed that allows rapid, efficient, and accurate investigation of the effects of microstructure, roughness, and surface chemistry on stem cell adhesion, proliferation and differentiation. Bioactive molecules, such as cytokines, growth factors, and extracellular matrix components can be attached to the surfaces to bind to and/or modify the cell characteristics.

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